

Scope for Virtual Tourism in the Times of COVID-19 in Select African Destinations

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ABSTRACT This paper explores the potential for virtual tourism in Africa as a way to contribute towards economic growth and sustainability under the impact of the COVID-19 pandemic. The study engaged in an archival method or document review, hence, thematic and content analysis. Virtual tourism has the potential to reach millions of people. The paper contributes towards innovative strategies for integrated and regional virtual or online tours of resorts such as game parks, reserves and other tourist attractions in Africa given travel restrictions. African governments must seriously consider partnership with the private sector in building virtual technology for virtual interaction and business resilience.

INTRODUCTION

Tourism has been a major income and employment generator contributing significantly to African countries' GDP. Africa was already fragile and vulnerable due to economic, social and political problems before COVID-19. Confidence levels among travellers, loss of revenue among industry investors and entrepreneurs, loss of jobs among employees, and lots of xenophobia (fears of the unknown) have spurred national lockdowns, worldwide. It has reduced occupancy levels for hotels and lodges, which in turn, have widely impacted even the banking sector. In Africa, Internet access has always been low for local tourists. Virtual tourism presents itself with safer viewing, reduced socio-cultural dilution and new technological jobs. Major investments are needed to reskill. Africa received around five percent of estimated 1.4 billion international tourist arrivals in 2018 according to the United Nations World Tourism Organisation (UNWTO) (UNWTO 2019). It was viewed as the second fastest growing tourism region

receiving a 5.6 percent growth against an average global growth rate of 3.9 percent (UNWTO 2019).

The World Travel and Tourism Index research found that tourism in Africa was mainly seventy-one percent leisure-driven, with the remainder twenty-nine percent being business-driven (WEF 2019). The North African nation of Morocco ranked first among the African countries with the most international tourist arrivals, accounting for 12.29 million arrivals in 2018. Following in second place was South Africa, which received around 10.29 million arrivals. Despite having the most international visitors among African countries in 2017, Morocco ranked second in terms of international tourism receipts, which amounted to approximately seven and a half billion US dollars. In this respect it was beaten by South Africa, which accounted for international tourist receipts of around 8.8 billion US dollars. In terms of the Travel and Tourism Competitiveness Index (TTCI) in 2017, which measures factors and policies that make a country eligible for investments in the travel and tourism

sector, these two countries also held the top spots. South Africa received a TTCI score of 4.01 out of seven, which made it the leading African country according to the 2017 TTCI. Comparatively, Morocco came in second with a TTCI score of 3.81 in 2017 (WEF 2018).

COVID-19 is hitting hard on already weak and fragile world economies forcing the world into a recession with the potential of deep consequences and historical levels of unemployment and deprivation (UN 2020b). Mitigation measures to reduce and slow down the spread of the virus (travel restrictions and lockdown of cities) have resulted in a significant reduction in demand and supply in the tourism sector (WHO 2020; Dube 2020). The vulnerability of the service sector is a huge concern in countries with most of their sectors being characterised by the informal sector. An initial assessment by the World Trade and Tourism Council forecasts a decline in international tourist arrivals of up to twenty-five percent in 2020, which would place millions of jobs at risk (International Labour Organisation 2018). This has promoted policy makers to rethink the best course of action to promote and stabilise the tourism industry in Africa, as the continent is already facing various challenges such as chronic poverty.

This paper assesses the possibility of using virtual reality in promoting tourism in Africa and primarily as an adaptive measure in the face of the current COVID-19 or Coronavirus pandemic. It explores if virtual reality can sustain the tourism sector while promoting the health and safety of the tourists as they virtually tour various tourist destinations in the comfort of their own homes.

Literature Review

Coronavirus is a generic name for various flu like viruses including SARS. When the specific virus is detected, a name is given for example COVID-19. The spread of COVID-19 globally has had detrimental impacts on the social, political and economic structures of the world at large (Boldog et al. 2020). Since its emergence in Wuhan, China, COVID-19 has killed thousands of people, many in large urban centres worldwide with the United States being one of the most affected countries (Null and Smith 2020).

This is also according to data, as of 30 April, when USA had recorded 10,005,000 and 61,000 deaths (John Hopkins University 2020), and one of the most affected sectors is tourism (RTG 2020; UNWTO 2020; Faus 2020).

Globalisation has been occurring at a high rate around the world over the past century (Angelo 2016). This has led to significant changes in how many societies view the world. The world has entered the informational age with the emergence of a digital economy being its primary trend (Voronkova 2018). The introduction of digital technologies through Virtual Reality (VR) has led to a different view of the role of tourism. It was introduced as a marketing tool to attract tourists to visit various places (Rainoldi et al. 2017). However due to the new world order shaped by the COVID-19 pandemic, virtual reality could be used as a tool to stabilise and maintain income flows from the tourism sector for many countries in Africa such as Zimbabwe. Before the pandemic struck, computer-generated simulations of 3D images used to enhance tourists desire to experience places (Jung et al. 2017). Tourists never had an insight of the places they wanted to visit unless they heard it from prior experiences of other tourists or probably people or relatives staying at those destinations. Virtual Reality in an environment that limits direct contact with people and objects, and affords tourists the opportunity to experience their intended destination in the comfort of their own homes (Jenny 2017).

Virtual Reality is a mechanism that makes use of a computer to create a three-dimensional world (Rainoldi et al. 2017). It is also a technological invention developed for smartphones and motion sensors by tracking a person's head, body positions and hand (cf. Pechlaner et al. 2003). Basically it functions with VR cameras, which have the ability to record in all directions (Jenny 2017; Rainoldi et al. 2017; Jayendran and Rejikumar 2018). Virtual reality merges two realities (physical and virtual reality) to create a space where people can communicate and touch each other through virtual mechanisms. This technology is applicable and can be embraced in tourism, as it applies to the visual senses since a lot of experiences rely on visual stimuli of tourists thereby addressing their wants and needs (Voronkova 2018). Virtual Reality in tourism has

been developed into an application accessible in iOS and Android phones. The application works well with various technologies such as Geographical Information Systems, as it is a route tracker enabled application that has a map and direction tracker with VR enabled service. As the tourist travels through the visual images, the application navigates them through their destination showing reality images of the place as well as the weather conditions present (Jenny 2017). This application concentrates on telepresence that adjoins all the five senses. The major positive result that is brought by virtual reality in the tourism sector is its provision for very vivid visuals on different places in real time.

Since the rise of mass tourism in the 1960s, city tourism has consistently been one of the fastest growing sectors in the world economy (Postma et al. 2017; UNWTO 2020). The COVID-19 pandemic has led to disastrous impacts on the world economy especially the service industry, which also includes the tourism sector. The number of countries implementing additional health measures that significantly interfere with international traffic has increased since the declaration of COVID-19 as a public health emergency of international concern (Muronzi 2020; Null and Smith 2020; RTG 2020; WHO 2020). According to the European Commission (2020), the spread of the virus is causing disruption of global supply chains, volatility in financial markets, consumer demand shocks and negative impact in key sectors like travel and tourism (Boldog et al. 2020; Fulton 2020; Dube 2020). In Europe there has been a considerable reduction in international arrivals (massive cancellations and drop in bookings for example from American, Chinese, Japanese, and South Korean travellers). The COVID-19 crisis not only threatens the Western region but also the developing world is at risk not only health wise but as a devastating social and economic crisis over the months and years to come (UNDP 2020). Therefore, Africa's tourism sector is also not immune to these impacts of the Coronavirus.

The fragility and vulnerability of Africa has left the continent more susceptible to economic regression than any other continent in the world (Mata and Ziaja 2009; USAID 2018; Mavhura 2019). According to Carter (2008), countries with repeated cases of disaster impacts never truly

recover completely and preparedness remains restricted. As the virus spreads, income flows are being affected leading to a decline in direct investment flows, capital flight, domestic financial market tightening, and a slowdown in investment, and hence job losses (UN 2020a). Postma and Schmuecker (2017) suggest that sustainable development is an important starting point in contemporary policy and planning worldwide. In order to sustain tourism for the present and future generations, policy makers have dwelt much on the concept of sustainable tourism development, which tries to find a balance between economic, environmental and social aspects of tourism development (De la Vega et al. 2019).

Solutions to sustain the tourism sector in Africa in the face of a global pandemic have become difficult due to travel restrictions and lockdown protocols (Muronzi 2020; Staff Reporter 2020; RTG 2020). Countries across sub-Saharan Africa are taking precautions to stop the arrival of international visitors and stymie the spread of COVID-19 within their borders (Dube 2020). In many cases, this has meant blocking all incoming flights or screening and quarantining passengers of certain nationalities or arriving from specific countries (Refugees International 2020). With such travel restrictions, Virtual Reality can be a way for people to fulfil their visual desires without direct contact with people or objects that can cause transmission of the Coronavirus (Jayendran and Rejikumar 2018; Voronkova 2018). This comes, as there has been a growing reluctance among people to travel as a safety measure against the pandemic. Virtual tourism has been established to enhance desirability of a destination in order to attract people to it (Jayendran and Rejikumar 2018). However, in this new era of the COVID-19 pandemic, virtual reality can be seen as a way to sustain tourism and maintain income inflows in the industry, as people limit travelling for physical site seeing but focus on visual tours of destinations of interest in the comfort of their own homes.

Conclusions have been drawn that virtual reality is a valuable asset to the tourism industry in six areas, which are planning and management, marketing, entertainment, accessibility, education, and heritage preservation (Rainoldi et al. 2017). Thus, Virtual Reality has transformed the ways in which tourism products and servic-

es are promoted on the market. Jenny (2017) reveals that the use of smart phones makes it easier to access information on tourist destinations thereby making the virtual tourism open and accessible to a wide array of Internet users. This can be achieved by ensuring that protocols on data sharing are calibrated to remove all hurdles pertaining to sharing of information (Allam and Jones 2020).

METHODOLOGY

The paper uses the pragmatic research approach, which is dominantly qualitative in investigating the applicability of virtual tourism in building resilience in the tourism sector (Creswell 2014). Documentary analysis of books, journals, websites and newspaper articles assists in the enhancement of reliability of the paper (de Falco et al. 2019). Data obtained was then processed into information and analysed through the use of thematic content analysis. Thematic content analysis is the use of textual material in research reducing it to more relevant, manageable bits of data and is also a method of analysing the text of social investigation among the set of empirical methods (Kumar et al. 2020). After summarising literature, it was assembled and structured thematically into important concepts. This enabled the paper to bring out themes on virtual technology and its uses in tourism amidst the pandemic.

RESULTS

COVID-19 hit the globe unexpectedly leading to greater than anticipated impacts during the first phase of the disaster (Fulton 2020; European Centre for Disease and Prevention and Control 2020; Jones and Kassam 2020). Besides the impacts affecting the health sector more, the tourism sector and other service industries were greatly affected too. Income losses are expected to exceed USD 220 billion in developing countries (UN 2020b). With an estimated fifty-five percent of the global population having no access to social protection, these losses will reverberate across societies, impacting education, human rights, and in the most severe cases, basic food security and nutrition. Mitigation measures have been proposed by different govern-

ments and other organisations such as the United Nations. However, there are rising questions as to how some industries are going to adapt to the prevailing conditions set by the Coronavirus. This section of the paper will look at the impacts of the COVID-19 on tourism as well as how virtual technology can be applied to sustain tourism activities by maintaining income flows for African tourism cities.

Land-use Planning Perspective

Land-use planning has always factored in security factors, health factors, conformity and also space capability (Randolph 2004). Land-use planning is the process of regulating the use of land in an effort to promote more desirable social and environmental outcomes as well as more efficient use of resources (UN-HABITAT 2018). COVID-19 affected the way people and communities operated (Boldog et al. 2020; European Centre for Disease and Prevention and Control 2020; Faus 2020). This has seen policy makers, planners as well as other actors in development question whether COVID-19 will affect the planning process and systems. These sentiments are in line with (Klaus 2020) who states that disease shapes cities as a number of infrastructures in many cities such as London were constructed as health facilities to cater for the Spanish flu.

Mitigation measures to deal with disasters do not occur in a socio-spatial vacuum but in a rural or urban space. COVID-19 is affecting many people especially in big cities where migration and movements occurred at higher rates (Zenou 2010). Tourism cities such as Wuhan in China, Rome in Italy and New York City in the United States had the highest number of affected population in the early phases of the pandemic ('Lessons from Italy's Response to Coronavirus' 2020; Zhang and Xu 2020). This means that the pandemic has disrupted the patterns in which tourism cities function globally. Considering virtual technology in tourism is not a new concept, virtual tourism was already in the works as stated by scholars such as (Jung et al. 2017; Jayendran and Rejikumar 2018; Voronkova 2018). Virtual tourism provides tourism operators to access markets by offering a safe 'seeing environment' for those that want to see only. It will not ad-

dress a *'feeling factor'* for those that want to experience. The use of virtual technology does not eliminate the threat that tourism cities' infrastructure may become white elephants. There is need for tourism cities, working through local and central governments to come up with solutions to these impacts.

COVID-19 has started to accelerate changes that have been slowly brewing in many cities for a long time, with one of those being urban sprawl and gentrification. Many people have fled the cities to live in rural areas showing that many urbanites now view the rural areas as safer zones than the city centres. According to Fulton (2020), urbanism was one of the most important drivers of both social and economic life due to the power of proximity. With the coming in of the pandemic, people are learning that proximity does not always result in positive results. Urban planners need to consider and balance issues of safety and health in the rural and urban areas as well as to see how much value and relevance to attach to the rural regions.

Management of COVID-19 Impacts by Tourism Cities

Disaster risk management is the use of resources and information towards a disastrous event and it is measured by how effectively, efficiently and seamlessly one coordinates these resources (Kapucu 2012; Modh 2010). The tourism sector can also be affected by disasters and requires effective disaster risk management to reduce loss of lives as well as sustain tourism activities. There is need to come up with effective solutions to the declining tourism sector, which partly is due to the impacts of COVID-19 disaster that resulted in reduced travel as countries had imposed travel restrictions. The World Travel and Tourism Council has warned that the COVID-19 pandemic could lead to the loss of 50 million jobs globally in the travel and tourism industry. Once the outbreak is over, it could take up to 10 months for the industry to recover (Faus 2020). Many mega-cities or small towns are tourist destinations, distribution centres, and key tourism sources because of their large population or unique environments as well as important status and function in the national urban system (Postma et al. 2017). However, impacts

of the Coronavirus pandemic hit hardest in mega cities than small towns. This is due to the large number of tourist traffic in mega towns. High rate of migration in cities such as Rome, Italy has caused a higher rate of infections than Great Zimbabwe Ruins in Masvingo Zimbabwe (Malandrino et al. 2019). Most mega cities with a higher rate of tourist arrivals rely more on the tourism sector for economic growth than smaller cities and towns, therefore can be at higher risk of impacts of COVID-19. There is need to implement a systems approach in planning that considers inputs, processes and outputs, which should be holistic and comprehensive to understand the diverse impacts of the Coronavirus. Planners need to shy away from obsession with spatial planning heavily biased towards physical planning and include a 'human face' to planning considering socio-political factors that affect city dynamics and growth as well as resilience.

There should be consideration and a balance between place prosperity versus people prosperity in the development discourse, which should also be the guiding principle of planning. Impacts of the virus on the local people and businesses can be reduced and disease transmission can be minimised. This can be done through implementing social distancing, isolation practices, in crowded beaches, for example in Durban, Cape Town (Pisano et al. 2020). This calls for redesigning of such tourist attractions or simply re-organising use of the same space and at times, more policing than planning redesign, with the planning balancing physical planning and people prosperity.

In tourism cities, people prosperity is heavily dependent on the informal sector especially in Africa. Informal traders should be reorganised so that they continue earning a living during travel bans, for instance, informal traders selling souvenirs in Victoria Falls, Zimbabwe (Null and Smith 2020). Some other businesses such as small-scale food outlets and restaurants can be operational under strict government control and monitoring.

Packaging Virtual Tourism

Information communication technology (ICT) has increasingly been incorporated into the tourism sector. Virtual technology has been

used to find innovative ways to market tourism and integrate it in product service offerings (Jung et al. 2017). According to Jayendran and Rejikumar (2018), there are four main attributes identified, that can give better destination image. These attributes are accommodation, amenities, accessibility and attractiveness. These give a good quality image to the destination. To address the limitations caused by COVID-19, an actual tour on the virtual application should be given more attention over accommodation, amenities and accessibility, as most of the tourists will not be able to physically visit the destinations of their choice. When it comes to use of virtual technology, any tourist destination, be it New York, Cape Town or Harare can generate more income by promoting virtual tours. However, success depends much on marketing and packaging (Jenny 2017). Hence, planners play an important role in providing a holistic understanding of city dynamics that can help generate interests as a tourist destination to the outside world. For instance, tourism operators can add compelling local stories to animated pictures and using local resources and people with knowledge of the socio-cultural dimension (Rainoldi et al. 2017).

In Zimbabwe, there is a package for virtual tourism for Expo 2020 Zimbabwe Pavilion in Dubai. The host packages a walkthrough virtual video available online. The simulation video can be accessed through codes that can be paid for online. The viewer then wears virtual reality earphones with goggles that make them feel like they are walking through Amazon forest in the comfort of their home (Voronkova 2018). In international tourism, computerisation facilitates holistic packaging and synchronisation of three primary pillars that constitute the backbone of successful tourism planning and implementation and these are the creation of global booking and reservation networks, the advent of electronic marketing and management and the design of virtual guided tours (Voronkova 2018). This highlights the central role that virtual reality can play in promoting tourism marketing with an additional potential to promote virtual tours.

One of the challenges with virtual tours for the less economically advanced countries is that with the world having become a global village, there is a greater risk of virtual tourism being

dominated by the advanced economies with their high access to advanced technologies (Rainoldi et al. 2017; Voronkova 2018). Advanced economies are likely to develop and package local attractions in a more compelling manner. Policy makers should develop and implement policies that promote protection and user rights as well as copyright laws. Post COVID-19, virtual tourism has a greater potential of being the entry point which, will help to boost confidence for physical visits by tourists (Jenny 2017; Jung et al. 2017). Incorporating VR into tourism also creates a momentum impact on addressing the gap between the tourist expectation and the experience of a destination.

While virtual technology might be a new way in which tourism is likely to operate, there is still need to come up with diverse ways of effectively using existing infrastructure. Local governments should come up with sustainable ways to repurpose existing buildings, for example adaptive reuse. Adaptive reuse refers to the process of reusing an existing building for a purpose other than which it was originally built or designed for (Bullen 2007). It is also known as recycling and conversion. Adaptive reuse is an effective strategy for optimising the operational and commercial performance of built assets. It can be an attractive alternative to new construction in terms of sustainability and a circular economy and it has prevented thousands of buildings' demolition (Langston et al. 2008). There is need to consider other viable economic activities that can make use of unused buildings so as to promote economic efficiency in tourism cities.

Challenges Faced by the ICT Sector to Facilitate Virtual Tourism in Zimbabwe

The adoption of virtual tourism is enabled by the smooth functionality of information communication technologies (ICT) in the country. The development of ICT infrastructure remains a big challenge in most countries (Scheyvens 2017; Weidenfeld 2018). In Zimbabwe, efforts were made to improve the ICT infrastructure through the adoption of the second generation (2G) applications, which in 2014 were recorded to have exceeded seventy-five percent (Zimbabwe National ICT Policy 2015). Considering that most tourism activities in Zimbabwe are con-

centrated in remote areas, mostly in rural areas, the broadband coverage in these areas still remains very low. This means that tourist destinations, which are in remote areas, are not adequately covered compared to urban and well-developed destinations (Department of Tourism 2020).

The ICT applications depend on electricity for their functionality. In Zimbabwe, the commercial electricity is distributed through the national grid and does not cover the whole country. The country is currently operating at an electricity supply of 1200 Megawatts against a national requirement of 1600 Megawatts (Herald 28 March 2018). The tour operators outside the national grid depend on alternative power sources, which include solar and generator systems. The alternative systems have the disadvantage of being very expensive, particularly at the installation stage. The operators who are on the national grid are also experiencing erratic supplies pushing them to use backup plans in the form of solar systems and generators.

In Zimbabwe, the uncoordinated institutional systems and governance has resulted in less effective implementation of ICT policies in most organisations (Zimbabwe National ICT Policy 2015). ICT developers in Zimbabwe have earmarked ICT development as central to tourism development and management (Research ICT africa.net 2017). Lack of coordination in design and implementation of ICT policies by various ministries in Zimbabwe has resulted in slow adoption and development of ICT by many industries, tourism included. For example, the Ministry of Transport and Infrastructural Development needs to work together with the Ministry of ICT to build supporting infrastructure for network development within the country.

The investment in ICT infrastructure development has mostly resulted in positive economic growth (Bankole 2017). The initial investment for ICT development is normally very huge, thereby resulting in many countries failing to commit resources to its fruition. The current perceived investment high-risk status of Zimbabwe is resulting in foreign borrowing being very expensive for the country. This is resulting in many promising investors losing interest to invest in the country. A high-risk country is perceived by most investors as not safe to invest in because

the returns on investment will be very marginal with the high interest rates.

It has taken Zimbabwe 12 years to come up with the Cyber Security Bill (Herald 2018). This means that the country has been operating without a cyber security framework. Cyber security is explained as a practice, which ensures the integrity, confidentiality and availability of information as when it is required (Porud 2017). The country lacks the basic preventative techniques used to protect the integrity of network, program and data from attack, damages and unauthorised access (MISA 2017). This implies that as a country Zimbabwe is open to cyber-attacks and the use of ICT platforms in operations is not safe.

Case Study: Victoria Falls Opportunities for Promoting Virtual Tourism

Victoria Falls is in western Zimbabwe and a gateway to a massive waterfall of the same name (Mkono 2012). It is one of the seven natural wonders of the world and a major waterfall on the Zambezi River in Africa (Arrington 2010). With a length of 1,700 metres and maximum vertical drop of 108 metres, it forms the world's largest sheet of falling water when in full flood (Laver et al. 2001). Besides the waterfalls, Victoria Falls has a beautiful national park, Zambezi Game Park that offers several tourist attractions and activities such as prime game viewing, bungee jumping, boat cruises, flight of angels over the Victoria Falls and traditional cultural dances. When COVID-19 cases were reported in Zimbabwe, a number of measures were implemented by the town of Victoria Falls and government to protect the tourists as well as the local people. According to RTG (2020), hotels were closed for the duration of the lockdown period. The Rainbow Hotel in Victoria Falls implemented recommended actions, staff awareness, guest awareness and personal hygiene. Staff Reporter (2020) has stated that the tourism industry in Zimbabwe has recorded cancellations of bookings and trips by international travellers following the outbreak of COVID-19 that continues to spread worldwide.

The current hotels occupancy rate in Zimbabwe has declined from eighty-five percent before the COVID-19 pandemic to about twenty-

five percent with no foreign visitors except for locals. Victoria Falls water levels have reached a peak that was last seen in the 1970s, and yet there are no visitors to experience this natural wonder due to the current national lockdown (Zengeni 2019). The influence of ICT on destination competitiveness was put to comparative analysis with accommodation and transport during a study, which was carried out in the resort town (Zengeni 2019). He concluded that accommodation and transport as tourism infrastructure had the greatest weight with a coefficient of 0.13, whilst ICT had the least coefficient of 0.04 (Zengeni 2019). Though it was the case then, but due to the rise of COVID-19 and the need of virtual tourism, ICT could possibly be a leading variable in destination competitiveness. This is not surprising considering the fact that the role of technology in the tourism sector has long since been acknowledged, with earlier scholars (such as Olsen and Connolly 2000, Magnini et al. 2003; Su 2011) confirming the significant role.

Victoria Falls would be an appropriate attraction in Zimbabwe for the adoption of virtual tourism. This is because it carries among other attractions the most popular tourist attraction for Zimbabwe, which is the waterfall. Victoria Falls has several world-class five-star hotels such as the Victoria Falls and Kingdom hotels. An international airport is also found in Victoria Falls, making the destination well accessible by international tourists. Furthermore, most rental and tour operating companies that include Shearwater and Wild Horizon are found in Victoria Falls.

In the past years, Victoria Falls has been recording high figures of international visitors. In 2018 the total number of tourists who visited Victoria Falls was seventy-two percent of clientele mix compared to twenty-eight percent of local visitors in room occupancy (Zimbabwe Tourism Authority 2018). From July 2015 to June 2016 (the duration for Visitor Exit Survey (VES)), the total number of visitors to the country was 2,106,975 as per the Department of Immigration Control. The average expenditure of all visitors as per VES was USD 385. Therefore, the estimated direct revenue from visitors for July 2015 to June 2016 was USD 811,185,375 (Zimbabwe Visitor Exit Survey (VES) Report 2015-2016). Assuming that more travellers visited Victoria Falls

in means that more revenue was generated through Victoria Falls.

Tour guides trained by the Department of Tourism and Hospitality are employed by established companies like Shearwaters and some operate as freelance tour guides, which creates employment (Victoria Falls Times 2020).

From the foregoing discussion, it can be noted that the decrease in tourist arrivals within the Victoria Falls tourist destination will result in tremendous impacts on the social wellbeing of the community through loss of employment and loss of revenue. Therefore, the concept of virtual tours may save the town from massive revenue decline. Tourist related companies and freelance tour guides should explore options of developing a virtual tour, which can be marketed and sold online. The implementation of virtual tours in the resort town might minimise some negative perceptions, which were linked to actual tours. For example, in 2009, there was a complaint, which was filed by two hotel operators about noise caused by helicopters during the flight of angels. It was stated that Victoria Falls World Heritage status is under threat after two hoteliers at the prime resort town petitioned the World Heritage Commission against noise pollution in the town (Victoria Falls Times 2020). The hoteliers, The Victoria Falls Hotel and the Kingdom, separately wrote to the World Heritage Commission saying noise generated by frequent flights over the Falls and through gorges and the number of licenses given to helicopter operators were a cause for concern (The Zimbabwe Independent 2009). The hoteliers complained that the noise caused by the helicopters was depriving their guests of a quiet and relaxing environment. Furthermore, in 2013 environmentalists warned the government of Zimbabwe that noise pollution from helicopter flights over Victoria Falls could badly affect elephant herds in Zimbabwe (Victoria Falls Bits and Blogs 2013). Elephants are considered to be an important part of the ecosystem in Zimbabwe and if they were to flee, the environmentalists were concerned about what will become of the ecosystem in the resort town (Victoria Falls Times 2020). The restrictions brought about by the COVID-19 are likely to temporarily reduce such problems.

DISCUSSION

Building confidence through trust and dialogue is crucial in making policy measures effective (International Labour Organisation 2018). This equally applies to policy measures that affect the tourism sector, which require trust and confidence if the tourists are to prioritise visiting a selected destination. Building resilient cities should inform planning and development of cities whose economies heavily rely on tourism, such as Victoria Falls. A resilient approach in city planning and development should promote the integration of the physical, socio-economic and political environment to ensure that after a disaster, the tourism sector can effectively respond, adapt, recover, transform and bounce forward better than before. This entails innovative approaches such as promotion of planning laws that facilitate multipurpose use of public buildings such as conversion of schools and hotels into hospitals and safe havens. Tourism cities also need to heavily invest in research, information technology as well as marketing and communication, which will facilitate launch of and adaptation to virtual tourism by both local and international consumers. This can be achieved by promoting partnership with academic and research institutions as well as private-public partnership for investments into required infrastructure that facilitates setting up and use of virtual tourism.

Virtual Reality in tourism should be developed to enable the tourists to experience what each place offers just by the touch of a button. This would reduce fear in tourists, for example, fear of being affected by diseases in some of the destinations that tend to be disease prone, particularly tropical destinations. In addition, virtual reality would have positive impacts on the tourism industry that tend to bear the economic brunt whenever diseases outbreaks, such as coronavirus, occur. The success of virtual reality heavily depends on good governance that should ensure continuous monitoring and assessment as well as data sharing on available attractions, challenges and opportunities with all stakeholders, including national and international tourists through platforms such as the smart city network. Emerging applications of VR

technology are transforming and technology is capable of effectively reaching millions of people across the globe (Rainoldi et al. 2017). With advances in 3D and 360-degree cameras, it is possible to develop animation of tourist destinations such as the Victoria Falls and addition of several options that may not be offered to a physical visitor, such as games that can be sold through payment of a subscription fee, regional virtual tours of a wide range of attractions combined with cultural tours of different countries. This however should not be done at the expense of the local industry and local population who also earn a living from tourism.

Planners need to consider all possible impacts of any venture including tourism activities and how to minimise negative impacts. However, virtual tourism might not appeal to all visitors especially those who seek adventure and authenticity of attractions. Developing countries such as Zimbabwe might not offer effective and appealing tour packages due to limited technological advancement especially to visitors from advanced economies. The Coronavirus can also be a once in a lifetime disaster like the Spanish flu and Coronavirus driven investments in the tourism sector may not be economically viable if there are low chances of the world being affected by a virus of similar magnitude and impact to COVID-19. However, considering virtual technology is still a viable option, it is pertinent to strengthen marketing strategies making it a possible game changer for local and regional tourism, which will be fit for a future that is likely to be heavily determined by virtual reality as technology continues to advance.

CONCLUSION

The Coronavirus has impacted the world at a scale greater than any other disaster faced in the last 75 years, particularly the health sector. The economies of the world have also been hit hard especially the service industries. In some countries, the tourism sector has been completely shut down as countries imposed travel bans and restrictions to reduce transmission of the virus. Businesses need to come up with resilient strategies to generate income and minimise job losses. Investment and increased use of virtual technology that include 3-D is one of the strate-

Table 1: Disaster risk management activities in tourism cities

<i>Governments</i>	<i>City</i>	<i>Operators</i>
Revisit policy and legislation to enable all the city and operators to effectively take on their roles in the disaster risk management of the cities.	Housing is a vital component of managing the pandemic. Therefore, the city should amend laws and spatial plans to allow alternative building technologies and materials instead of sticking to conventional approaches.	Avail B&Bs, hotels and lodges as quarantine accommodation at home rental prices.
Strongly invest in primary and public health as well as other sectors that can be affected by disaster having ripple effects on the rest of the sectors, for example, education, transport and social protection.	Local Economic Development initiatives should focus on local tourism and SMEs especially after lockdown, as they are more fragile financially and cash-strapped when market demand is down.	Avail above venues to be centres for broadcasting of e-teaching.
Explore options for economic diversification rather than solely relying on tourism medium to long term.	Decongest hotspot human settlements and use technology like drones to monitor hotspots.	Invest in state-of-the-art private medical facilities, which will attract high-class tourists who may be concerned of inadequate or low-quality health provisions in some of the countries.
Strengthen hazard mapping, risk monitoring and early warning to enable preparedness planning for cities.	Planners to coordinate with other city stakeholders and package the cities for tourism museums, history of some physical structures and importance in city growth	Invest in technology to facilitate internet access and promote marketing of attractions at the international level.
Establish national disaster funding mechanisms to support cities and other entities if the disaster effects are beyond capacity of the city to use its own resources.	Decentralise economic activities through killing CBDs and going for suburban hubs. Build grassroots disaster risk management (DRM) local institutional structures and invest in disaster risk reduction strategies (DRR) as well as promoting city resilience strategies. Promote cremation and aquamation, as it is cheaper and easy to undertake and also deals with land shortage induced by the COVID-19 pandemic. Develop business continuity and contingency plans and also conduct simulation exercises to ensure city readiness in case of a disaster.	

gies that can be used to promote tourism in the context of COVID-19 and travel restrictions. This has the advantage of people being protected and kept safe in the comfort of their own homes.

RECOMMENDATIONS

There is need for responsible authorities to come up with various technologies, laws and policies on property rights on the use of Inter-

net so as to promote and protect use of virtual tourism. More so, local governments should come up with strategies that can promote the adaptive reuse of buildings such as hotels while search for a vaccine is in progress. Virtual tourism has the potential to reinvigorate tourism in cities that rely on tourism for income as well as enable them to continue getting cash inflows particularly during times of COVID-19 and travel restrictions.

There is need for a collective effort in disaster risk management between the operators, government and the city, particularly development of multi-hazard risk management plans and strategies as well as ensuring their implementation. Table 1 shows a number of activities that can be undertaken in order to help tourism cities adapt to the pandemic.

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